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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,852	01/18/2002	Masahiko Yokota	00684.003312	1343

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

WORKU, NEGUSSIE

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/050,852	Applicant(s) YOKOTA ET AL.	
	Examiner Negussie Worku	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-15 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/15/02, 10/05/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, as failing to set forth the subject matter which applicant(s) regard as their invention.

Claim Objections

2. Claim 15 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 1-14. See MPEP § 608.01(n). Accordingly, the claim 15 is not been further treated on the merits.
3. Claims 7, line 3, "provided with!!" improper need an appropriate correction and in claim 8 of the end line provided "!. " is improper need an appropriate correction.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (USP 5,734,483) in view of Chang et al. (USP 6,285,441).

With respect to claim 1, Itoh discloses an image reading apparatus (image scanner of fig 2) comprising: an image reading unit (image sensor 15 of fig 2) having image reading means for reading an image 9contact image sensor 15 of fig 2, col.6, lines 1-4); a first original carriage (contact glass platen 12 of fig 2) for carrying an original (document to be read of fig 2), and for reading an original image in contact with an image reading unit (reading unit 15 of fig 2) which is moving, (col.6, lines 28-33); a second original carriage (ADF 13 of fig 2) for carrying an original and for reading an original image in contact with an image reading unit (image reader 15 of fig 2) which is in a stationary state, 9col.6, lines 16-20); a guide portion, (guide shaft 16 of fig 2) provided outside an image reading region, (image reading region (platen) contact glass 12 and 24 of fig 2) for guiding said image reading unit (image sensor 15 of fig 2) away from said stay when said image reading unit moves between said first original carriage and said second original carriage (contact image sensor 15 reciprocally moved, col.6, lines 28-33); and a member to be guided (guide shaft 16 of fig 2) slidable relative to said guide when said image reading unit moves between said first original carriage and said second original carriage, (contact image sensor 15 reciprocally moved, col.6, lines 28-33), said member to be guided in being disposed at a balanced position in a moving direction of said image reading unit (image reader 15 of fig 2), and is substantially in line contact with said guide portion (guide shaft of fig 2).

Itoh does not teach or disclose a stay provided between said first original carriage and said second original carriage; urging means for urging said image reading unit toward said first original carriage or toward said second original carriage.

In the same area of image scanning and reading apparatus Chang et al. discloses a stay (a pulley 93 and 94 of fig 3, disposed near to the both side of the image reader 81 of fig 3) provided between said first original carriage (belt 84 of fig 3) and said second original carriage (belt 95 of fig 3, belt 84 and 95, as the first and the second carriage); urging means (pulley 93 and 94 for keeping the image sensor 81 of fig 3, in the position of image reading area) for urging said image reading unit (81 of fig 3) toward said first original carriage or toward said second original carriage.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Itoh's image reading device to include: a stay provided between said first original carriage and said second original carriage; urging means for urging said image reading unit toward said first original carriage or toward said second original carriage.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Itoh's image reading device by the teaching of Chang et al. for the purpose of providing a holding and a moving mechanism capable of moving an image sensor stably with out inclination and with out causing damaged to image sensor.

With respect to claim 5, Itoh discloses an apparatus according (as shown in fig 2), wherein said member to be guided is in the form of a circular shaft member (a guide shaft 16 of fig 3, col.6, lines 22-25).

With respect to claim 6, Itoh discloses an apparatus according (as shown in fig 2), wherein said guide portion (guide shaft 16 of fig 2) is provided at each of longitudinal ends of said stay, and said member to be guided is provided at each of longitudinal ends of said image reading unit (contact image sensor 15 of fig 2).

With respect to claim 7, Itoh discloses an apparatus according (as shown in fig 2), further comprising a shaft (guide shaft 16 of fig 2) for supporting said urging means, and said image unit (15 of fig 2) is provided with!! a through hole, through which said shaft is penetrated (guide shaft 16 have a hole, through which penetrated).

With respect to claim 8, Itoh discloses an apparatus (as shown in fig 2), wherein said through hole has a thinner thickness at a peripheral portion than at the other portion, (guide shaft 16 of fig 2, have a hole as shown in fig 3)

With respect to claim 9, Itoh discloses, wherein said member to be guided is disposed at a position at which a weight balance is established in the moving direction of said image reading unit (image sensor 15 of fig 2, guided on the guide shat 16 of fig 2).

With respect to claim 10, Itoh discloses an apparatus (as shown in fig 2), wherein said member to be guided is provided at a position where urging force of said urging means is balanced, (image sensor 15 of fig 2, guided on the guide shaft 16 of fig 2).

With respect to claim 11, Itoh discloses an apparatus (as shown in fig 2), wherein said member to be guided is disposed at a position where force applied by said guiding member is balanced (image sensor 15 of fig 2, which is a member to be guided by a guide shaft 16 of fig 2, is positioned and balanced).

With respect to claim 12, Itoh discloses an apparatus (as shown in fig 2), wherein a product of a geometrical moment of inertia of said stay and a Young's modulus thereof is not less than $6.5 \times 10^6 \text{ kg} \cdot \text{mm}^2$.

With respect to claim 13, Itoh discloses an apparatus (as shown in fig 2), wherein.

With respect to claim 14, Itoh discloses an apparatus (as shown in fig 2), wherein said image reading unit (15 of fig 2), includes projecting means (lens array 62 of fig 10) for projecting light to the original and a lens for directing light reflected by the original to the image reading means (15 of fig 1, col.9, lines13-25).

With respect to claim 15, Itoh discloses an apparatus (as shown in fig 2), wherein

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said image reading apparatus (15 of fig 2) is usable with an image forming apparatus having an image forming means for forming on a recording material an image corresponding to an original read by said image reading apparatus (image reading 15 of fig 2).

Claims Objected to having Allowable Subject Matter

6. Claims 2-4, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 2, the prior art does not teach or disclose an apparatus, wherein said guide portion has a first inclined surface or first curved surface for moving said image reading unit away from said stay upon movement from said first original carriage to said second original carriage, and a second inclined surface or second curved surface for moving said image reading unit away from said stay upon movement from said second original carriage to said first original carriage.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

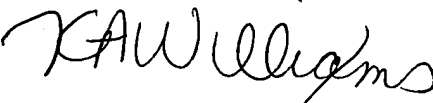
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 571-272-7471. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Negussie Worku
September 26, 2004


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER